

J P V Madsen & WW1 Engineer Officers Training School Moore Park & Roseville (1915-1918).

(Prepared by R W Madsen May 14, 2018).

Introduction.

Unfortunately the Official History of the WW1 AIF does not appear to make any reference to the Engineer Officers Training School where JPVM was initially the Chief Instructor (1915-1917) & then the Commanding Officer (1917-1918). The History of the Australian Engineers (1902-1919) "Make & Break" by R R McNicholl (1979) also does not mention the Training School at Roseville.

The choice of Roseville on Middle Harbour off Boundary Street & north of Cardigan Rd & the eastern end of Ormonde Rd as the site for the School from July 1916 was undoubtedly influenced by JPVM having his residence in Roseville at Wandella Ave (since 1914 & previously in Victoria Street south 1909-1913-near Roseville station) some two kilometres south of the camp in what is now the Roseville golf course. In 1969 he asked to visit the Old Roseville Bridge site in Middle Harbour & recalled that the thing the men enjoyed the most was to use explosives to blow up railway lines.

The piece of information most lacking in this story is the total number of engineers who completed the course at the School & also it should be mentioned that JPVM's own personal records for the AIF cannot now be located, however it does appear that David Myers did have access to them at the time he wrote the biography for the ADB as he specifically refers to JPVM being commissioned in April 1915. In May 2018 the AWM is still unable to provide the total number of students who completed the EOTS courses but an estimate would appear to be between 250 & 500.

Engineer Officer & Sapper requirements for Field Companies for AIF Divisions.

The first contingent of Australian & New Zealand volunteers left by convoy from Albany W. A. on November 1, 1914 (followed by a second contingent on December 31, 1914) which included 3 Field Companies of Engineers (1st-NSW. 862 nominal roll, 2nd-Vic, Qld, NSW .726 nominal, 3rd-SA,WA, Tas 601 nominal) [the second contingent apparently did not include any Engineer Companies].

The structure of the AIF Division was that it consisted of 3 Brigades made up of 4 Battalions & each Brigade had a Company of Field Engineers (which was more than the equivalent British Division which only had 2 Companies of Field Engineers per Division). A large number of tradesmen (112, 452- 33.88% of total enlistment) enlisted in the AIF & these volunteers became the source of sapper personnel for Field Companies.

There is a website "RSL Virtual Memorial" which lists the names & rank of personnel in each Engineering Field Company & which then allows a National Archives digital enquiry. On the fourth page of a service record a red "EOTS" stamp will show whether he attended a course.

The total number of Field Units formed for the AIF were 1st-6th Divisional Units, an ANZAC Mounted Division, Australian Mounted Division & Desert Mounted Corps Troops.

The Royal Engineers in England in 1914 comprised 1,056 Officers & 10,394 men (Regular & Reserve) & 513 Officers & 13,127 men (Territorials) which by 1917 had increased to 295,665, a twelve fold increase.

The number of Officers in each AIF Field Company, as the RSL Virtual Memorials indicate, was probably less than 5%. (The total number of all professional people who volunteered for the AIF was 15,719- 4.74 % of the total). The personnel selected for the Engineering Officer Training School were highly qualified engineers, surveyors & architects & the courses they were given were designed to meet their requirements. The EOTS was established for the training of Officers to reinforce the Technical Units in the field, namely Engineers, Pioneer & Tunnelling Units.

Other Engineering Units of the AIF.

Apart from the Field Units, the AIF had Signal Units (1st-5th Div. Signal Companies, Aust. Corps Signal Company, 1st & 2nd Signal Squadron, Aust. Pack Wireless Section, 1st Aust. Wireless Signal Squadron), Mining Units (1st-6th Tunnelling Companies), Aust. Electrical, Mechanical, Mining & Boring Company, Railway Units (1st-6th railway Operating Companies), Work Units (Workshops), Survey Unit & Training Units (3 in England, 1 in Ismalia).

It appears that Training in Australia for Officers & men of the Signal Companies was undertaken at the Broadmeadows Camp in Melbourne.

Major [Sir] Charles Marr enlisted in 1916 & was to command the 1st ANZAC Wireless Signal Squadron (1916-18) Sinai- he was an Electrical Engineer in the Radio branch of the PMG Sydney.

Engineer Officers Training Course for Field Companies.

It would appear that the training course for Engineering Officers was for approximately 5 months. Sir Walter Bassett (of the 5th Field Company) recalled being at Moore Park in the early part of 1915 & was commissioned on September 30, 1915 prior to embarking on October 8, 1915. William James Rodan (3rd Field Company) enlisted on June 23, 1917 & attended at Roseville prior to embarking on March 21, 1918 as a Sapper. It would appear that 5 or 6 EOTS courses of Company size were conducted between April 1915 & its closure by April 1918. The course was for Officers & NCOs. & an examination Grade was given for each section (1st, 2nd, 3rd grade). & in 1917 was for 20 weeks.

From the outset of EOTS JPVM applied a careful selection process for instructors choosing the most competent permanent instructors available supplemented by several other permanent instructors from other states & those not proving satisfactory were returned to their units.

On completion of each course the results were considered by a Board of Officers & the men then recommended as Officers or NCOs. The men left the School as NCOs and went to their different Depots & put in charge of recruiting reinforcements & their progress monitored carefully before a final recommendation was forwarded.

The facilities at Roseville were ideal for infantry, horsework, bridging & waterwork. Students & staff all lived in tents (some buildings for stores & stabling) & electric lighting generated at the camp proved to be an invaluable boon to the men who did considerable reading during the evenings.

The teaching methods used throughout the course as arranged by JPVM were that the theoretical & practical sides of the work were closely interlocked. The practical work in any subject was preceded by lectures explaining the principles. (the same method as used by JPVM in teaching Electrical Engineering) Night operations formed an important part of training, alarms, night attacks, laying out of trenches, placing of machine gun emplacements, rapid wiring, trench attack & the building of bridges were carried out. Training of officers was done on the basis that they should be able to do everything that they expected of the men working for them.

The use of barrels for the construction of barrel piers, rafts, jetties and bridges was carefully dealt with- all work was of the quick, temporary type, constructed with timber & lashings & all work was required to be correctly designed before construction was attempted.

Pontoons were used for forming rafts, light, heavy & medium bridges & landing stages. Special pontoon equipment consisted of two pontoons & two trestles with 75 feet of roadway, carried on three trestle wagons as part of the Field Engineers equipment.

A full knowledge & practice in handling of all types of explosives was essential & each student was given the opportunity of making himself proficient in the use of these.

In addition to the curriculum special lectures were from time to time delivered by Officers as they return from the Front, and the latest developments in military practice, as they come to hand, were included in the training.

The daily routine started at 6.00 am, morning parade & exercises 6.30-7.30, 1st parade 9.00 – 12.30, 2nd parade 2.00-5.00, 5.30 tea, 10.15 lights out.

Intakes to the School appear to have occurred at different intervals of several months & each possibly in the order of 20 per intake, at least in the latter stages of the School-students came from all states of Australia as Roseville was the only Engineers Officer School in Australia. The course to commence on March 22, 1918 was cancelled.

On Saturday December 1, 1917 an impressive display ‘Australian Engineers Military Display’ was put on & apparently watched by a very large crowd of people numbering in the thousands. See the Programme below & SMH press article for the event.

Field Company Operations at the Front.

The type of activities Field Engineers undertook included bridge & road construction, dock & pier construction as at Gallipoli, communication trench digging, construction of machine gun emplacements, water pipeline construction as through to El Arish in the Sinai, bridge construction & repairs over the Somme on 29th-30th August, 1918.

Sir John Monash.

Just briefly it should be mentioned that John Monash who rose to head the Australian Corps in May 1918 consisting of all the Australian Divisions & other resources including tanks & air force, was

extremely effective in his planning as highlighted in his orders for August 8, 1918 where the role for Engineering Companies was included. He was a Civil Engineer himself trained at Melbourne University & born in Melbourne in 1865 to parents from Poland who had arrived in 1863.

Sir Edgeworth David from Sydney University was the Chief Geologist for the AIF in France & was involved with Mining & boring operations of AIF Engineers.

Notes.

1. A total of 5 Pioneer Battalions were raised in 1916 in Egypt from volunteers after Gallipoli whose role was a combination of Light Engineering & Infantry.
2. Training of Engineering Companies in Australia from 1910 up to WW1 was influenced by Lord Kitchener's Report to the Australian Govt. which identified the need to make significant changes & improvements. Lord Kitchener was himself commissioned into the Royal Engineers in 1871 & did much Survey work. In 1911 the Aust. Govt. introduced a programme of Universal Training. The predecessor of the EOTS was known as "Engineer Officers Training School of Instruction". The Moore Park site for Engineer Training would have included the area subsequently used for the Sports Ground.
3. Sir Ian Hamilton (from England) inspected the Australian Forces in in early 1914 which were by then more substantial than in 1910, but he considered that they were not sufficiently well trained to be considered a professional force.
4. Duntroon, the Officer Training School for the Australian Army was started in 1911.
5. See EOTS certificate for William James Rodan signed by JPVM below. Also Lt. Arthur John Debenham.
6. JPVM's experience in equitation would, I believe, in part have been passed on from his father, Hans Frandsen Madsen, a surveyor with the NSW Lands Dept. In 1933 HFM wrote: "In 1876 (on his appointment to the Dept.) the Surveyor General Mr Adams was kind enough to recommend an advance of 150 pounds for an outfit from the Dept. without any security, & with this I procured instruments, a spring cart, 5 horses, tents and packs for 2 horses etc. and with my assistant, 2 men & a cook all under 20 years of age, I kept at constant work in the Mountains for nearly 2 years". JPVM himself had completed his BE at Sydney University in 1900 as a Civil Engineer before becoming a Lecturer in Electrical Engineering at Adelaide University in 1903.
7. The staff in October 1916 of the EOTS Roseville (No 1 Section) including JPVM as Captain consisted of: 2 Captains, 2 Lieutenants, 1 Sergeant Major, 1 Company Sergeant Major, 17 Sergeants & 2 Corporals. See the photo below.
8. In the 1917 Sydney University Calendar it is recorded that "Assistant Professor Madsen, Lecturer in Electrical Engineering, has been appointed Instructor of Field Engineers, and has been granted partial leave from his duties".

EOTS TRAINING PROGRAMME. (As per William James Rodan 1917).

SECTION 1.

INFANTRY 4 WEEKS.

PHYSICAL TRAINING. As per Progressive Course of Physical Exercises.

DRILL Squad, Platoon and Company Drill.
 Guards and sentry Duties.
 Rifle Exercises, Musketry, Bayonet Fighting.

SIGNALLING Morse Code.

FIELD WORK Extended Order Work.
 Fire Discipline Control, Orders and Direction.
 Night Operations

EXAMINATION

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SECTION 2.

INFANTRY 6 WEEKS

DRILL Platoon & Company Drill
 Guards & Sentry Duties

SIGNALLING Morse Code

FIELD WORK Visual Training Judging Distance, Map Reading & enlargement, Field Sketching, Reconnaissance, Use of Mekometer, and preparation of Range Cards.

MUSKETRY Miniature Range, Standard Field & Battle Practice.

HYGEINE Military Hygiene- including March Discipline

ADMINISTRATION Administration and Military Law, Organisation Pay etc.

At the end of this course each student is to present a thesis on a tactical problem which will be set during the course.

EXAMINATION.

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SECTION 3.

EQUITATION 3 weeks

HORSE WORK Fitting of Harness & Saddlery
 Cleaning & Care of Harness & Saddlery
 Anatomy of the Horse
 Stable routing

Ailments & peculiarities of the Horse

First Aid Treatment

Equitation (aids)

Equitation-bareback (bonding exercises).

Equitation- Saddles with & without stirrups.

Jumping

Driving (Teams only)

Troop Drill

Horse Lines

EXAMINATION

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SECTION 4.

ENGINEERING FIELD WORKS 3 WEEKS.

Tools and their use

Expansion on works- also at night

Tool carts, packing etc.

Field geometry

Brushwood Fascines Hurdles etc.

Revetments-Sandbags, sods etc.

Machine Gun Emplacements

Obstacles- Entanglements – Trip Wires- Abattis etc.

Mining – Capping and Tunnelling shafts galleries etc.

Layout of Camps

Camp Arrangements, Water Supply, Field Ovens, Incinerators, Grease & Septic tanks

Road Location, Bombing and Levelling

EXPLOSIVES & DEMOLITION

Fuzes- Jointing and precautions in the use of explosives (Types of).

Practice with smoke bombs and trench periscopes.

Bombing with high explosives and their use in breaking down overhead cover.

Trench Attack and Defence by Bombing parties.

Charges and effect of mines –calculation for charges..

Testing and firing of mine charges..

Craters and their uses.

Testing of electrical circuits.

Demolitions (deliberate & hasty)

EXAMINATIONS.

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SECTION 5

BRIDGING 3 WEEKS.

Knots and lashings.

Tackles

Use of spars, derricks, shears, swinging derrick, gyn, splicing.

Moving tool carts and heavy weights over rough country.

Field Observatories and composite spars.

Field capstans and winches.

Trestle bridging.

Barrel Piers

Suspension Bridge.

Telper Railway

EXAMINATION

FINAL WEEK OF ASSEMBLY.

Engineer Reconnaissance and tactical exercises.

Section and Field Company Drill.

Night Movements and movements by rail and sea.

Pontoon Drill.

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PROGRAMME FOR MILITARY DISPLAY, SATURDAY DECEMBER 1, 1917.

Motor conveyances from Roseville & Chatswood stations.

3 pm. To 4.15 pm. Grooming, feeding & saddling of military horses; bivouacing & alarm; troop drill & section jumping; musical ride in menage; wagon drill & driving; tug-of-war.

4.30 pm to 5.45 pm. Erection of composite observation mast (100 feet high); loading military wagons; swinging derrick-rapid wiring; handling gun with sheers; handling gun with pripole, barrel piercing-consolidating craters- pontooning; infantry exhibition & bayonet fighting; exhibition of wireless station work & telephone wire running; Gretna Green recue race, flag race, section jumping, exhibition of lemon slicing, exhibition of tent pegging; Balaclava melee, musical chairs; wrestling on horseback; tug -of-war (mounted), tilting bucket, trick horse.

8.00 pm to 8.30 pm. Night trench raid; destruction of barbed wire barricades with high explosives, very lights, star shells, bayonet attack & defence.

8.45 pm to 10.00 pm. Concert and cinematograph.



Your story, our history
NAA: B2455, RODAN WILLIAM JAMES

AUSTRALIAN IMPERIAL FORCE

Engineer Officers' Training School,
ROSEVILLE, N.S.W.

This is to Certify that **RODAN William James**
has attended and completed the Course of Instruction for Officers and
Non-commissioned Officers of this School, with the result, as indicated
in the following schedule:

Subject	Period (days)	Examination Classification	Remarks
Infantry Training Part I	26	3rd Grade	
" " II	42	2nd Grade	
Equitation	21	2nd Grade	
Field Works			
Demolition	21	1st Grade	
Mining			
Bridging			
Pontooning	28	1st Grade	

8th December, 1917

[Signature] Major Captain
G.C.R. Chief Instructor

Officer Commanding E.O.T.S. *[Signature]* Captain

N.B.—Signature of Holder of Certificate on Back

RODAN William James : Service Number - 22288 : Place of Birth - St Arnaud VIC : Place of Enlistment - Melbourne VIC : Next of Kin - (Father) RODAN David - Page 15 of 25

The University of Sydney.

May 7th/

1918

Dear Sir.

I have much pleasure in sending you a copy of a letter which has been received from the Department of Defence in reference to the service which you have rendered to that department as Officer Commanding the Engineer Officers Training School at Roseville.

The letter was placed before the Senate at its monthly meeting held yesterday.

Yours faithfully,

T. Trumble
Warden and Registrar.

Commonwealth of Australia,
Dept. of Defence.
April 9th/1918.

Copy.

Dear Sir.

With further reference to your letter of the 6th February last, and this office letter of the 8th ult., relative to Major Madsen, I am directed to inform you that as a result of the discontinuance of further training at the Engineer Officers Training School, Roseville, and the closing of that establishment it is now possible to entirely release Major Madsen from military service.

The Minister desires me at the same time to again express his warm appreciation of the action of the University authorities in making available the services of Mr. Madsen as Chief Instructor and, latterly, Officer Commanding the Engineer Officers Training School. This gentleman's high technical and professional attainments coupled with the whole-hearted energy which he brought to bear on this important work has enabled this department to send forward highly trained Engineer Officers for the front, and it is confidently felt that the achievements of these officers on the field will disclose that Major Madsen's important work in military training has been fulfilled with ability and distinction.

Yours faithfully,

T. Trumble.

Sir Walter Bassett met Madsen for the first time when he was attached to this school; he has contributed this note of his experience.

"Following preliminary training early in 1915 at the Engineers' Depot in the Domain, Melbourne, I was fortunate to be posted for further training to Madsen's Officers' Training School, at that stage in Moore Park, Sydney.

Madsen made a splendid Commandant for such a School. He was well equipped as a teacher and made full use of his prowess. In addition, he was skilful in helping us by making us each in turn take a class for some small section of work, while he listened in and commented when necessary.

There was nothing of the professional "military" man about him. He maintained a mixture of hard discipline during work periods, and at other times a smiling ease and warm friendliness.

Apart from school technical work he was a tiger for regular physical exercises. The principal daily exercise was a pre-breakfast five mile run in Moore Park, a run which inevitably ended with the field widely spread out, but with Madsen himself, at 36, up near the leaders, and still smiling.

He naturally enough developed a well trained school, and one with a fine spirit."

It would be true to say that Madsen's greatest national service to Australia was made possible by his very active co-operation with the Council for Scientific and Industrial Research after this body was founded by the Commonwealth Government in 1926. The

— Engineer Officers Training School —

Roanoke, Va.

Dec. 1916



— STAFF —

1st Lt. Thomas Lee Sander 1st Lt. Hall 1st Lt. [unclear] 1st Lt. [unclear] 1st Lt. [unclear] 1st Lt. [unclear] 1st Lt. [unclear] 1st Lt. [unclear]



THE AUSTRALIAN ENGINEERS MILITARY DISPLAY, ROSEVILLE, SATURDAY DECEMBER 1, 1917.

SMH Tuesday, 4 December 1917.

MILITARY DISPLAY

FOR THE WAR CHEST FUND.

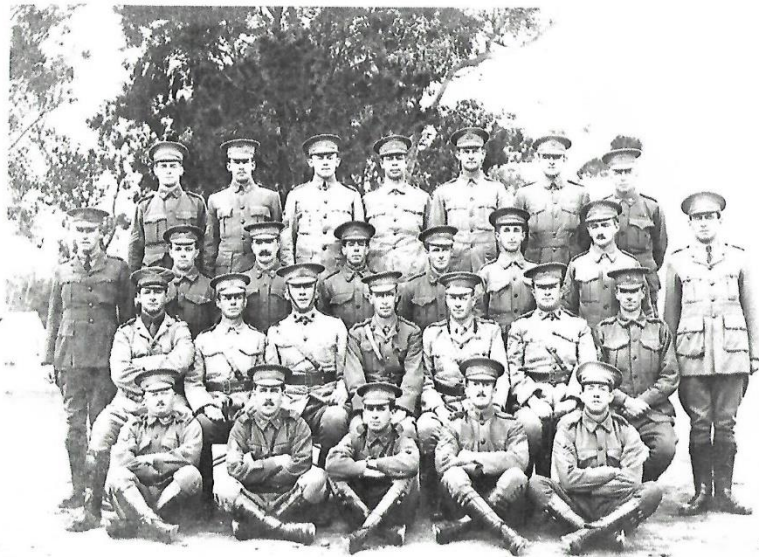
Thousands of people attended an exceedingly fine military display, which was given by the Australian Engineers at Roseville camp on Saturday. It was designed with the twofold object of assisting the War Chest Fund through the proceeds and educating the public in modern military operations. In both directions it was signally successful. The number of people present assured that the financial result would be substantial and as a military exhibition it was probably the largest and most successful that has been held in Sydney since the commencement of the war. Friends and relations of those at war eagerly availed themselves of the unique opportunity to view at their very doors, so to speak, and away from all the danger, something of what their boys were doing at the Front. The programme embraced exhibitions of grooming, saddling, feeding, riding and

driving, as well as games of musical chairs (mounted) and tug-o-war (also mounted). Particular interest was evinced in the erection of an observation post, so often mentioned in war literature, which was constructed to a height of 100 ft. The rapidity with which this was accomplished, and also the loading of military wagons, the laying of wire entanglements, the handling of guns, pontooning and many other undertakings, displayed admirably the high state of efficiency to which the training at the camp brings the men. A remarkable display of infantry work was also included in the afternoon programme, a notable feature being a demonstration of bayonet fighting. Wireless station work and telephone wire running was another outstanding feature. One of the most exciting events of the Display however, was during the night programme, when the great crowd of spectators watched with interest a night trench raid and the destruction of a barbed wire barricade with high explosives.

ENGINEER OFFICERS TRAINING SCHOOL

No. 1 SECTION

Roseville, 30/10/16




BACK ROW.—Sgt. S. J. McAuliffe, Sgt. R. Gillespie, Sgt. Alex. Dunn, Sgt. F. H. B. Wilson, Sgt. T. A. Lawrie, Sgt. V. A. Collins, Sgt. B. C. Chiff.
 THIRD ROW.—Lieut. V. J. F. Brain, Sgt. F. A. Jenkins, Cpl. G. S. Milne, Sgt. J. C. I. Laing, Sgt. F. S. Croker, Sgt. E. de Laperanche, Sgt. S. Halford, Lieut. A. R. Wright.
 SECOND ROW.—Lieut. C. Clouston Galloway, Sgt.-Major Irvine, C.S.M. G. Sibthorpe, Cpt. J. P. V. Madsen, Cpt. A. L. McLean, C.S.M. W. Werner, Sgt. J. Kelly.
 FRONT ROW.—Sgt. G. D. Moore, Sgt. F. J. Deacon, Sgt. L. E. N. Shenton, Cpl. W. Howard Hill, Sgt. J. D. Crawford.



Your story, our history

NAA: B2455, DEBENHAM A J

AUSTRALIAN IMPERIAL FORCE



Engineer Officers' Training School,
ROSEVILLE, N.S.W.

This is to Certify that ARTHUR JOHN DEBENHAM
has attended and completed the Course of Instruction for Officers and
Non-commissioned Officers of this School, with the result, as indicated
in the following schedule:

Subject	Period (days)	Examination Classification	Remarks
Industry Training Part I	38	2nd Grade	
" " II	42	1st Grade	
Equitation	21	1st Grade	
Field Works		1st Grade	
Demolition	21	1st Grade	
Mining			
Bridging			
Pentooning	20	1st Grade	

22nd September 1917

J. M. M. M. M. Major Captain
C. S. Chief Instructor

Officer Commanding E.O.T.S.
Captain

N.B.—Signature of Holder of Certificate on Back

**Debenham Arthur John : SERN Lieutenant : POB Petersham NSW : POE Sydney NSW :
NOK W Debenham Emily - Page 19 of 26**